Transmission Reliability Research Review

NERC Tools – Wide Area Real Time Monitoring

Carlos Martinez

Electric Power Group

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Review and Status of NERC Tools - Outline

- ➢ ACE-Frequency Tool Functional Goals

- ➢ Development Timeframe

- ➢ Wide-Area, Multi-Metric Visualization - NPCC

- ➢ CPS1 and CPS Monitoring – 10-Minutes, 1-Day

- ➢ Expanded ACE-Frequency Correlation Visualization

- ➢ Demo

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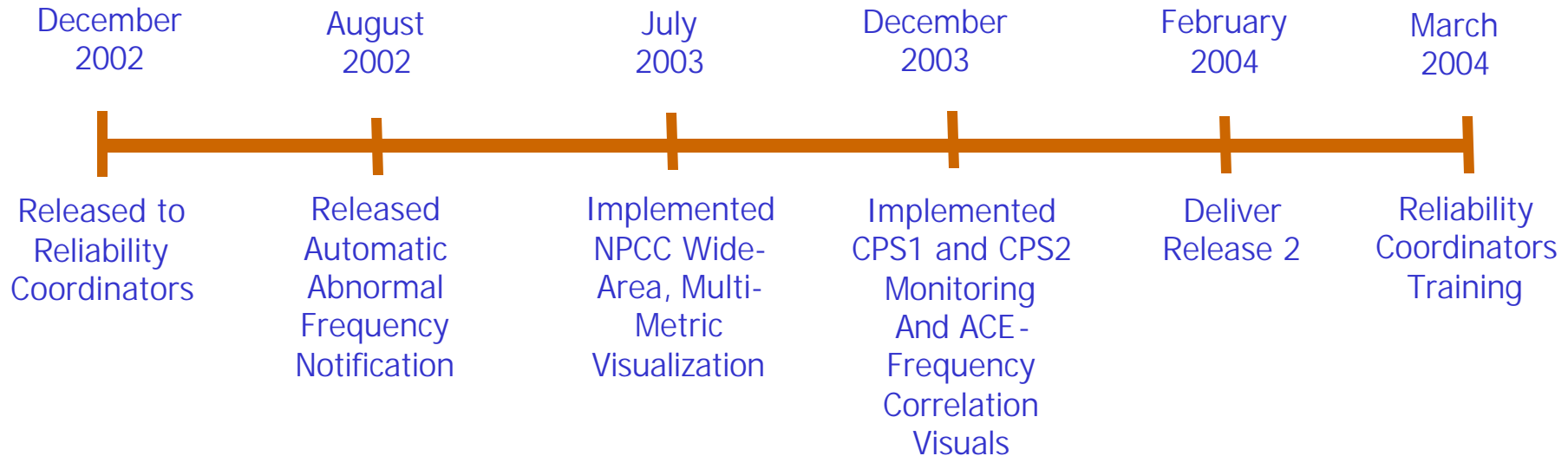CONSORTIUM FOR ELECTRIC RELIABILITY TECHNOLOGY SOLUTIONS
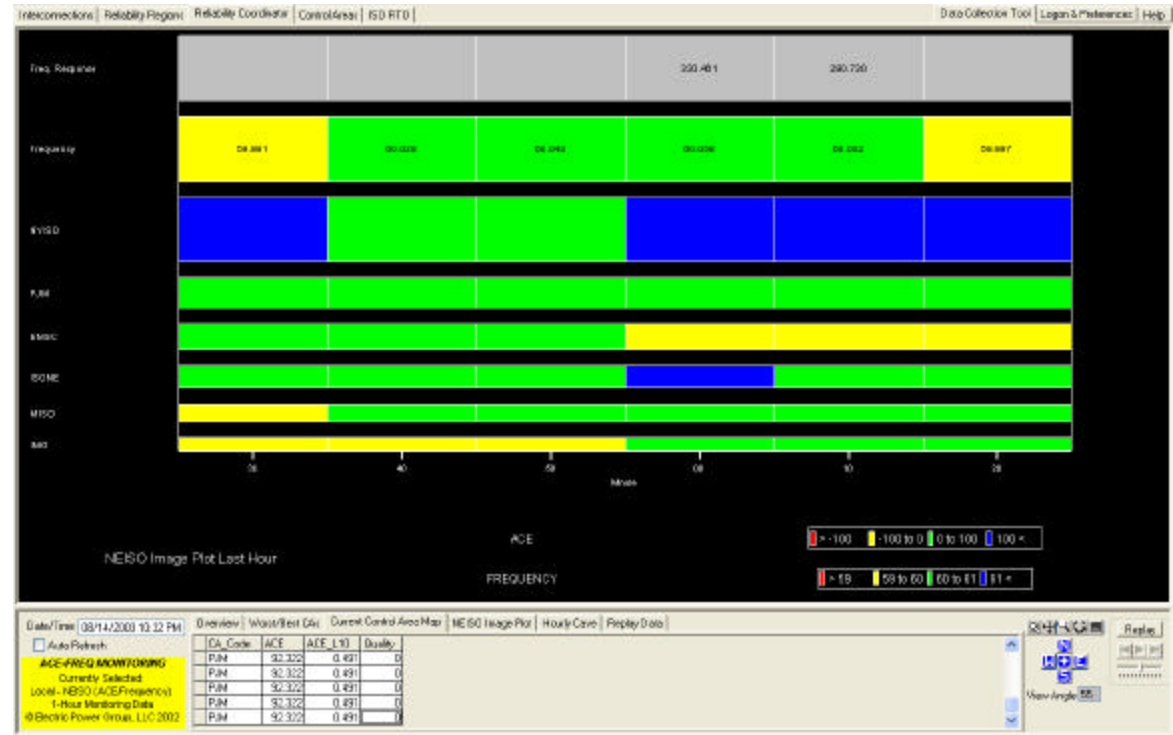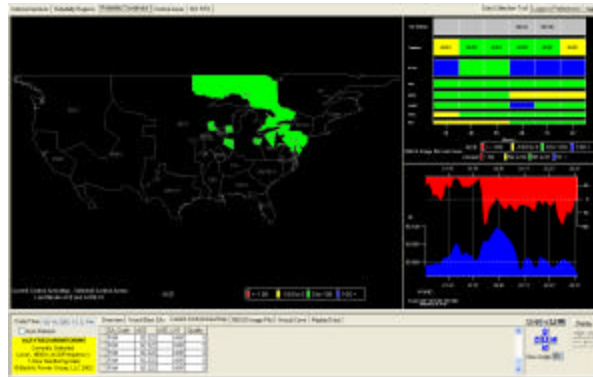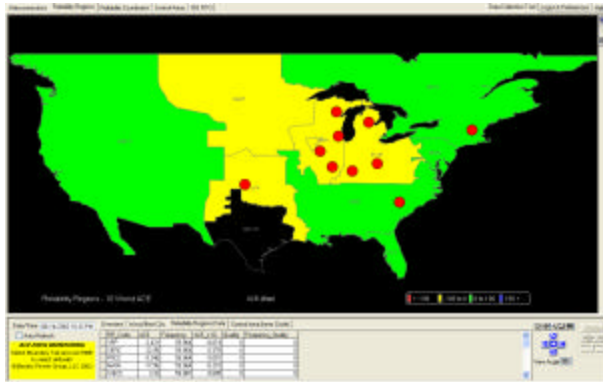
ACE-Frequency Tool Functional Goals

➢ Improve Reliability Coordinators monitoring of interconnection ACE-Frequency with a real-time tool

➢ Automatic early notification and alarming for interconnection abnormal frequencies

➢ Reduce time to search for interconnections abnormal frequency root causes – from months to minutes

➢ Improve Wide-Area Control Monitoring

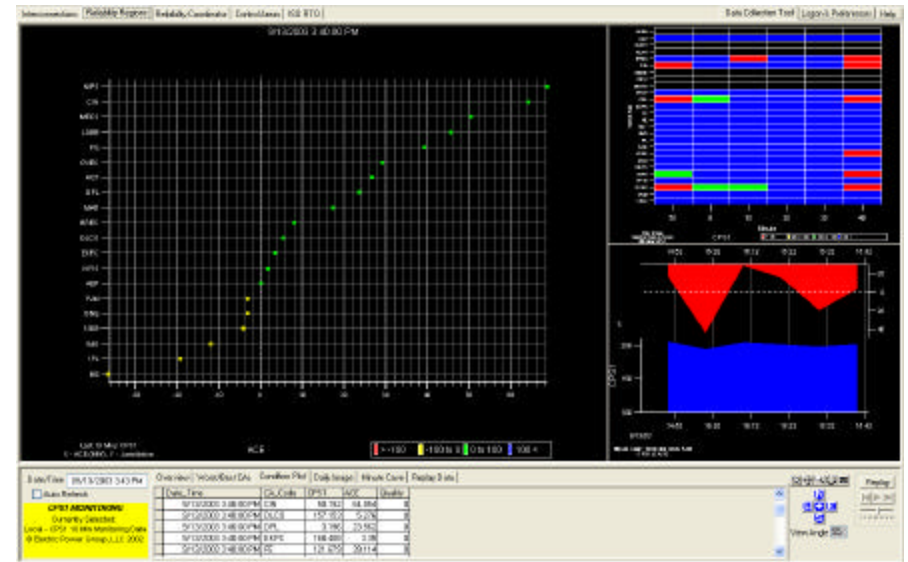➢ Improve analysis of Interconnections ACE-Frequency relationships

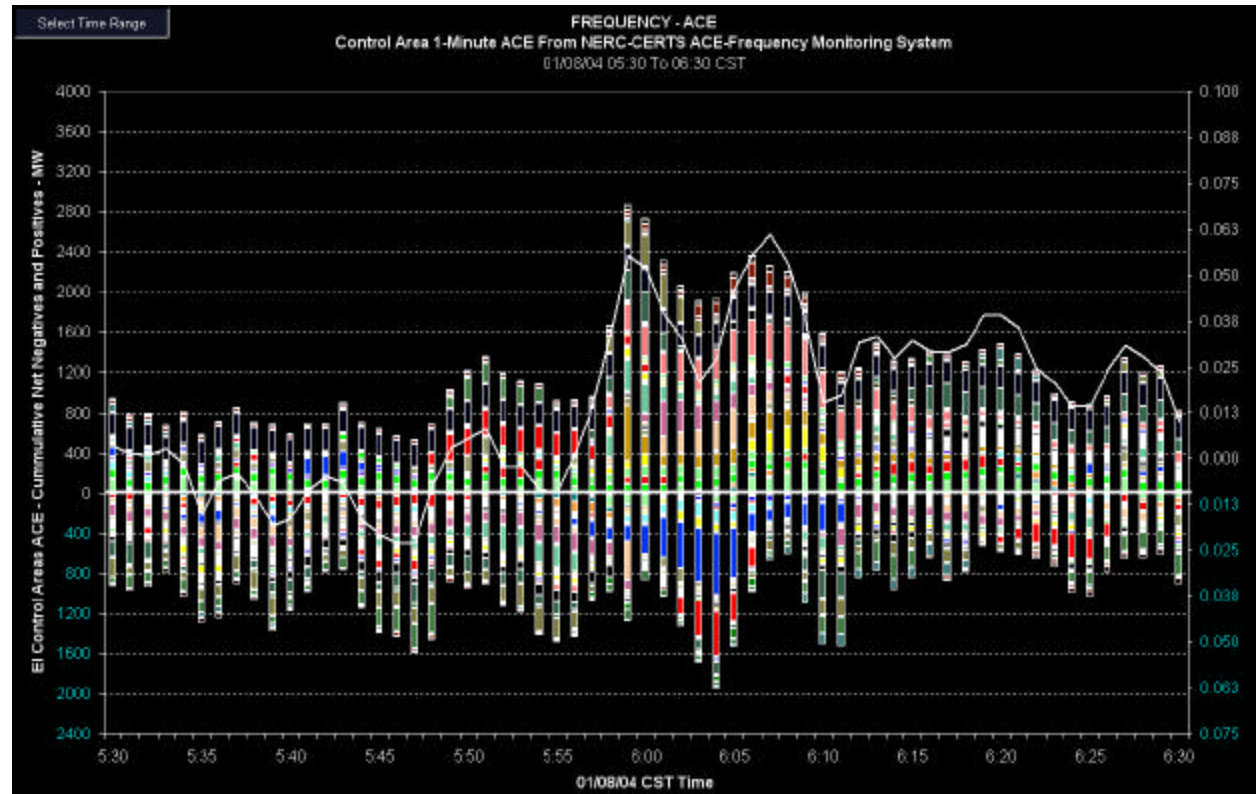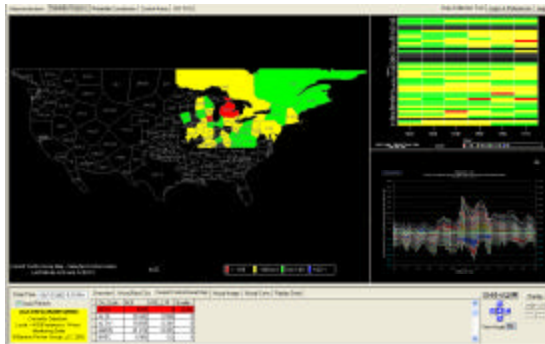# NERC ACE-Frequency Real Time Monitoring System - Timeframes

December 2002	August 2002	July 2003	December 2003	February 2004	March 2004
Released to Reliability Coordinators	Released Automatic Abnormal Frequency Notification	Implemented NPCC Wide-Area, Multi-Metric Visualization	Implemented CPS1 and CPS2 Monitoring And ACE-Frequency Correlation Visuals	Deliver Release 2	Reliability Coordinators Training

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CONSORTIUM FOR ELECTRIC RELIABILITY TECHNOLOGY SOLUTIONS

NPCC Wide-Area, Multi Metric Visualization

CPS1 and CPS2 Monitoring
1-Day and 10-Minutes

Expanded ACE-Frequency Correlation Visual

Demo
Expanded ACE-Frequency
Real Time Monitoring Tool